April 25, 2017

BY ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: ***Spectrum Bands Above 24 GHz et. al.*****, GN Docket No. 14-177, IB Docket No. 15-256, WT Docket No. 10-112, and IB Docket No. 97-95**

Dear Ms. Dortch:

On April 24, 2017, EchoStar Satellite Operating Corporation and Hughes Network Systems, LLC, (collectively "EchoStar"), Inmarsat, Inc. ("Inmarsat"), and Intelsat Corporation ("Intelsat") (jointly, the "Satellite Broadband Operators") met with staff of the FCC's Wireless Telecommunications Bureau, International Bureau, and Office of Engineering and Technology to discuss the Satellite Broadband Operators' joint position (with WorldVu Satellites Ltd., d/b/a OneWeb) regarding the further notice of proposed rulemaking in the above-referenced proceeding.

EchoStar was represented by Jennifer A. Manner, Senior Vice President, Regulatory Affairs, Brennan Price, Senior Principal Engineer, Regulatory Affairs, and outside counsel William Wiltshire of Harris, Wiltshire & Grannis LLP. Inmarsat was represented by Giselle Creeser, Director, Regulatory. Intelsat was represented by Susan Crandall, Associate General Counsel.

International Bureau staff present in person were Jose Albuquerque and Chip Fleming. International Bureau staff present via teleconference were Diane Garfield, Kal Krautkramer, and Alyssa Roberts. Wireless Telecommunications Bureau staff present in person were Simon Banyai, Charles Oliver, John Schauble, Blaise Scinto, Joel Taubenblatt, and Jeff Tignor. Wireless Telecommunications Bureau staff

present via teleconference were Catherine Schroeder and Nancy Zaczek. Office of Engineering and Technology staff present in person were Bahman Badipour, Brian Butler, and Michael Ha. Office of Engineering and Technology staff present via teleconference were Ira Keltz and Nicholas Oros.

In the meeting the parties discussed the attached talking points, which were distributed to the attendees, setting out the Satellite Broadband Operators' recommendations for a fair and reasonable framework for earth station siting above 47.2 GHz.

Pursuant to the Commission's rules, this notice is being filed in the above-referenced dockets for inclusion in the public record. Please contact me should you have any questions.

Respectfully submitted,

/s/ Brennan T. Price

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Blaise Scinto
Joel Taubenblatt
Jeff Tignor
Nancy Zaczek

Attachment

The Satellite Broadband Companies Propose Earth Station Siting and License Database Rules to Permit Equitable Use of the 47 and 50 GHz Bands by Fixed Satellite Service Operators and UMFUS Licensees

- EchoStar Satellite Operating Corporation, Hughes Network Systems LLC, Inmarsat, Inc., Intelsat Corp., and WorldVu Satellites Ltd. d/b/a OneWeb ("the Satellite Broadband Companies") support the below approach in the 47.2-50.2 GHz (47 GHz) and 50.4-52.6 GHz (50 GHz) bands that will facilitate intensive and equitable use of 5G platforms in the Fixed Satellite Service (FSS) and Upper Microwave Flexible Use Service (UMFUS), ensuring both services have sufficient access to the scarce spectrum resources they need to meet U.S. consumer demands.

- UMFUS licensees require regulatory certainty to deploy service in the areas they deem to be of high value. FSS operators also need certainty, as well as flexibility, to identify earth station locations in the satellite design phase that will have protected access to spectrum. FSS operators also require access to sufficient spectrum in which ubiquitous earth stations may be deployed to provide direct service to consumers.

- In order to meet the requirements of both UMFUS licensees and FSS operators, the Satellite Broadband Companies propose that the Commission should:

    1. ***Designate UMFUS as primary in the 47.2-48.2 GHz band while permitting the deployment of individually licensed earth stations.*** The Commission has proposed this segment for terrestrial wireless use, but has also made clear that FSS will be permitted to use this band. The Satellite Broadband Operators support the designation of UMFUS as primary in this segment and that FSS be permitted to deploy individually licensed earth station on a protected basis, through mechanisms similar to those adopted in the 28 GHz band, as reconsidered. A reasonable modification to the existing 28 GHz siting rules is vital to the ability of the Satellite Broadband Operators and other operators to provide future broadband services, while providing UMFU licensees the certainty necessary to establish services in this band.

    2. ***Reserve the 48.2-50.2 GHz band as exclusive for FSS.*** When designating this spectrum primarily for FSS uplinks, the Commission found that "spectrum designated exclusively for FSS will ultimately permit more effective deployment of satellite systems than does the current shared allocation scheme . . . ." It reaffirmed this finding when identifying corresponding downlink spectrum. This is one of the few slices of spectrum in which satellite operators can deploy user terminals on a widespread basis with full protection against interference from other services. Accordingly, the Commission should continue to designate this segment as primary for FSS uplinks only.

3. ***Designate UMFUS as primary in urbanized areas, while designating UMFUS and FSS as co-primary outside these areas in the 50.4-51.4 GHz band.*** Given the propagation characteristics of this band, both the Commission and the wireless industry have recognized that the primary opportunity for terrestrial deployment at this frequency range is in areas of high population density. Accordingly, UMFUS should be designated as primary in "urbanized areas" as defined by the U.S. Census Bureau, with service rules tracking those used for General Authorized Access in the Citizens Broadband Radio Service. FSS operators should retain the ability to deploy individually-licensed earth stations through mechanisms similar to those adopted in the 28 GHz band, as reconsidered and tailored for this frequency band. Outside urbanized areas, UMFUS and FSS should be designated as co-primary. Terrestrial deployment in this band segment is challenging due to rapid attenuation of transmissions, and the Commission will reduce the risk of this band lying fallow outside urbanized areas by designating FSS as co-primary.

4. ***Treat the 51.4-52.4 GHz band in the same manner as the 50.4-51.4 GHz band.*** This band is the subject of a pending petition for rulemaking before the Commission, as well as ITU studies toward a possible co-primary allocation at WRC-19. Treating the 51.4-52.4 GHz band in an identical manner to the 50.4-51.4 GHz band would permit immediate domestic use of the band by both UMFUS and FSS while providing potential to accommodate the outcome of these domestic and international efforts.

- This package of proposals strikes a fair and spectrally efficient balance between the needs of FSS and UMFUS operators in the 47 and 50 GHz bands. The Satellite Broadband Operators urge the Commission to implement this approach expeditiously in order to facilitate rapid development of satellite and terrestrial components of the 5G ecosystem for the benefit of U.S. consumers.